

FOX | ITACS

Master of IT Auditing & Cyber-Security

 Fox School of Business
TEMPLE UNIVERSITY®

IT Audit Process

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Week Eight – IT Audit Testing

IT Audit Fieldwork

- Executing the planned audit
- Obtaining and analyzing audit evidences
- Draw conclusions of control testing
- Provide rationale for the overall report rating
- Assessing audit workpaper quality
 - “Easy to Follow Rule”
 - Adequate of coverage
 - Reasonableness of conclusion
 - Rating and rating rationale

IT Audit Fieldwork

- IIA Standards related to fieldwork
 - 2300 – Performing the engagement
- ITAF performance standards
 - 1203 Performance and Supervision
 - 1204 Materiality
 - 1205 Evidence
 - 1206 Using the work of other experts
 - 1207 Irregularity and Illegal Acts

IT Audit Fieldwork

- ITAF performance standards
 - 1203 Performance and Supervision
 - Plan execution
 - Supervision/review process
 - Proficiency
 - Documentation
 - Identify and conclude the findings

IT Audit Fieldwork

- ITAF performance standards
 - 1204 Materiality
 - ‘reasonable possibility that a material misstatement will not be prevented or detected in a timely basis.’
 - Control deficiency/gap
 - Escalation is warranted

IT Audit Fieldwork

- ITAF performance standards
 - 1205 Evidence
 - Policies and procedures
 - Source documentation
 - Corroborated inquiry
 - Characters of “good” evidence
 - In written form rather than verbal
 - Independent sources
 - Results of inspection or observation. Etc.
 - Techniques to obtain evidence
 - Inquiry and confirmation
 - Observation
 - Review of documentation
 - Reperform/Re-calculation

Use PII in Conducting Engagement

- PII samples: name, address, IDs, income, blood type, evaluation, social status, disciplinary actions, employment files and credit and loan records, employee health and medical data, etc.
- In many cases, privacy controls are legal requirements in many jurisdictions. (e.g. newly implemented GDPR from EU)
- Audit is no exception – needs to understand and comply with all related laws and regulations within that jurisdiction

IT Audit Testing

- Control Description – Who/what/how often
- Control Attributes
 - Primary vs. secondary
 - Preventive vs. detective
 - Manual vs. automated
 - Frequency of the control
 - Who performs the control activity
 - How to evidence?

IT Audit Control Testing

- Evaluating the control design
 - Can address the risk identified
 - Can be evidenced
 - Can be measured
 - Can be compared (with standard)
 - Can be reported
- Evaluating the effectiveness of the control

IT Audit Testing

- Testing principles and techniques
 - What's the control objective?
 - What will the test prove or what's the purpose of the test?
 - Single control or a combination of multiple controls
 - What types of evidences are available for testing?
- Testing Techniques
 - Walkthrough
 - Observation
 - Corroborate inquiry
 - Review of documentation
 - Re-perform

IT Audit Testing – Lead-sheet Example

Change Control Testing

Purpose: To verify technology changes made to the Mainframe environment following the company's IT change management policies and procedures.

Source: Jane Doe, Manager, Solarwinds IT Helpdesk Ticketing System

Period Under Review: 1/1/2017 – 6/30/2017 (6 months)

Procedures:

- (1) Obtain MF changes from XX ticketing system between 6/30/2017 and 12/31/2017
- (2) Judgmentally selected 15 critical/major changes from the population. (there were over 150 changes recorded, the frequency of the occurrence was more than once a day, therefore we have an sample size of 15)
- (3) verify each sampled change was reviewed, approved, tested, and had a rollback plan

Prepare Date: 11/25/2017

Prepared by: Joe Doe, Sr. IT Auditor

Conclusion: Ineffective. High or medium risk rated changes made to the Mainframe environment were not adherent to the company's IT Change Control policies and procedures. Discrepancies were noted.

IT Audit Testing – Lead-sheet Example

Change ID	Severity properly assigned?	Assigned to the proper support team?	Was the change properly reviewed?	Was the change properly approved?	Was the change tested in the test environment?	Did the changes has a roll-back plan?	Was the change promoted to the PROD by the Ops. Team?
1	Y	Y	N	N	Y	N	Y
2	N	Y	Y	Y	N	N	Y
3	Y	N	N	N	N	N	Y
4	Y	Y	Y	N	N	N	Y
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IT Audit Testing

- Character of an effectiveness of a testing
 - Possible, practical and supportable
 - Test results provides meaningful evidence that specific IT control activities function as designed or not
 - Sufficient sampling
 - Sustainability for newly implemented controls
 - Can be replicated
- Testing Procedures:
 - Is the procedure well organized?
 - Does test steps keep the “objective” in mind
 - Auditor’s understand of controls
 - Is the conclusion adequately supported and factually accurate?

IT Audit Testing - Sampling

- Sample methodology should defined in the Audit Manual
 - Identifying the population
 - Defying the testing period
 - Judgmental vs. random
 - Judgmental sampling consideration:
 - Adequate coverage
 - Control frequency
 - Degree of automation
 - Complexity of the process
 - Ability to detect a material error
 - Historical experience with the process
 - Level of manual intervention
 - Key person dependency, etc.
 - Judgmental sampling rationale

IT Audit Testing - Sampling

Sample sized (SOX, ICOFR Testing)

Nature of Control and Frequency of Performance	Sample Size to Consider for Testing	Example
Manual, multiple times/Day	Min. sample size of 25	User provisioning and de-provisioning
Manual, daily	Min. sample size of 20	Mainframe daily batch processing
Manual, weekly	Min. sample size of 5	Weekly change control/management meeting
Manual, monthly	Min. sample size of 2	Monthly project management steering committee meeting
Manual, quarterly/semi-annually	Min. sample size of 2	Quarterly user access “re-certification”
Manual, annual	Min. sample size of 1	Annual IT steering committee board reporting
Programmed (automated)	One for each programmed control	Active directory password control